

APPLICANT'S O.G. FIG.
BY CLASS SUBCLASS
DRAFTSMAN

6304217

#09176587

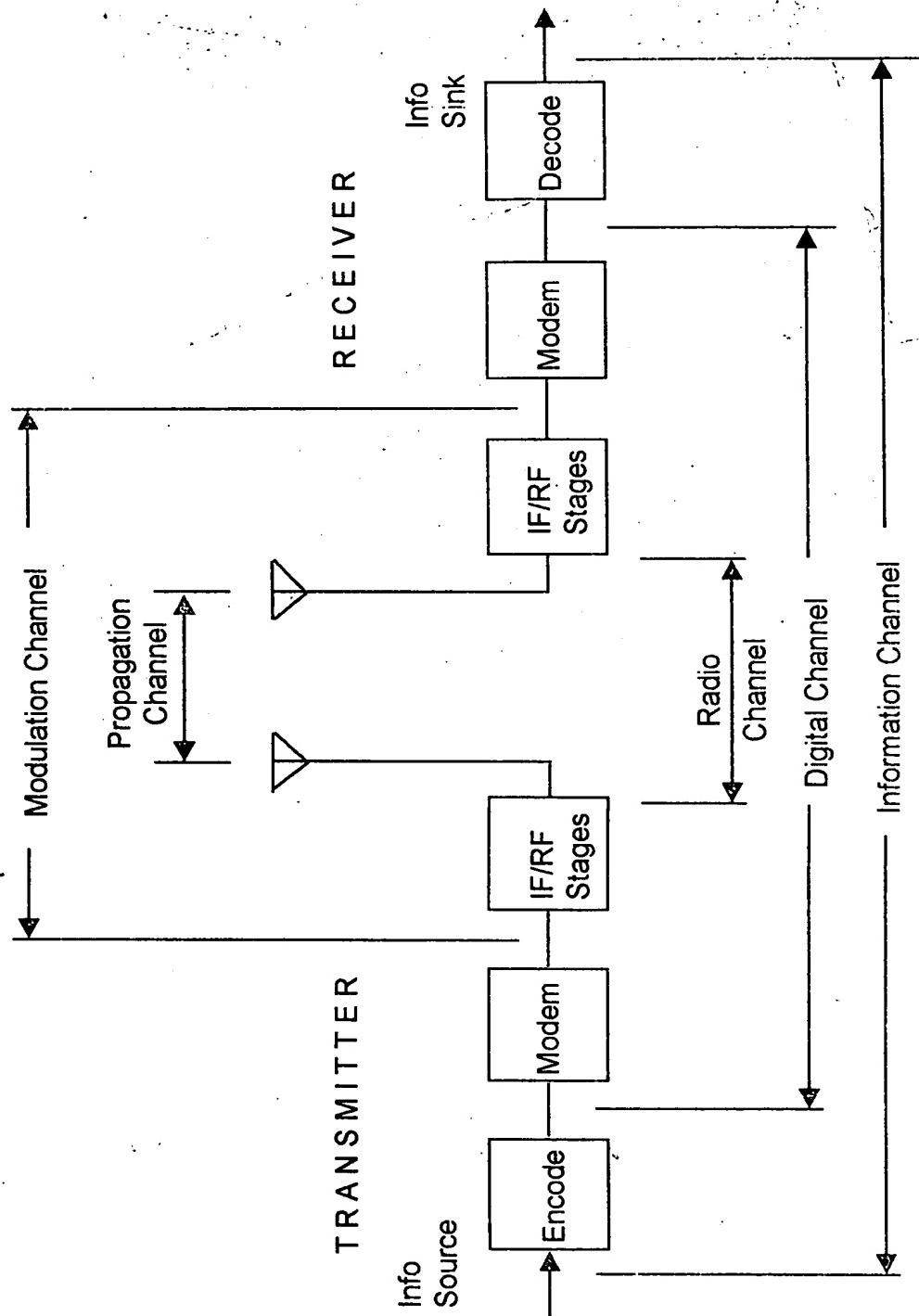


FIG. 1

16
figs.

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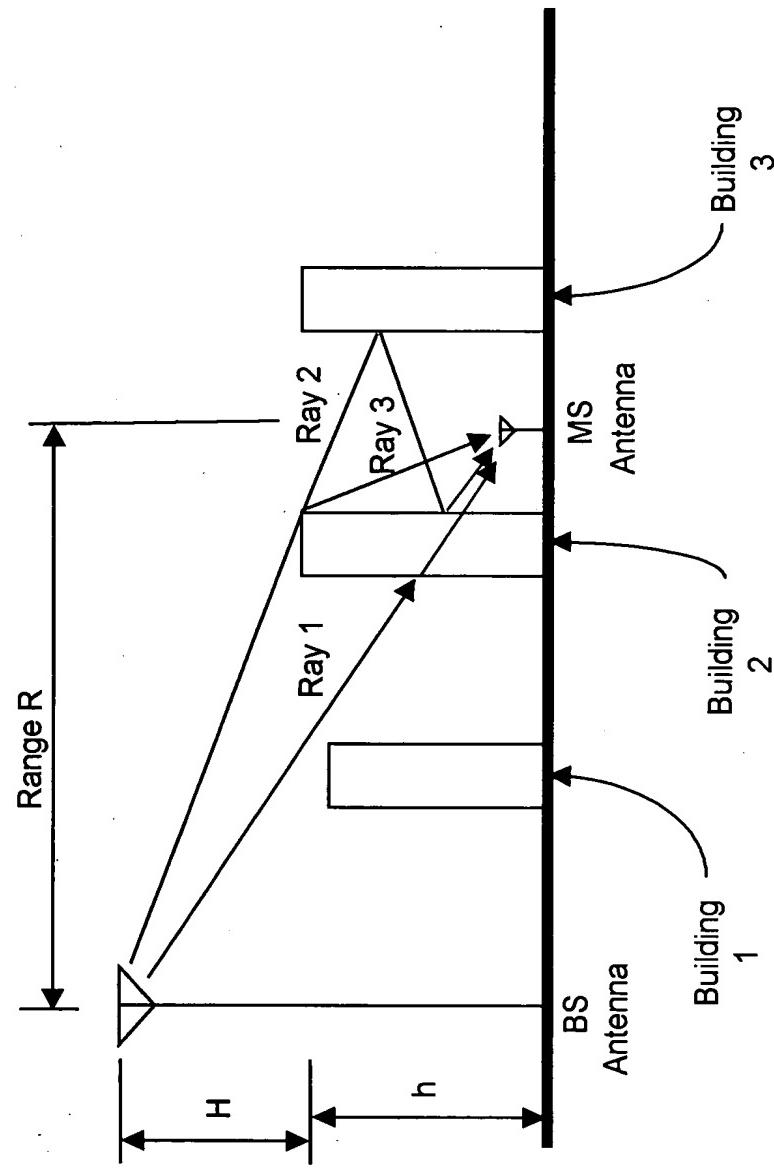


FIG. 2

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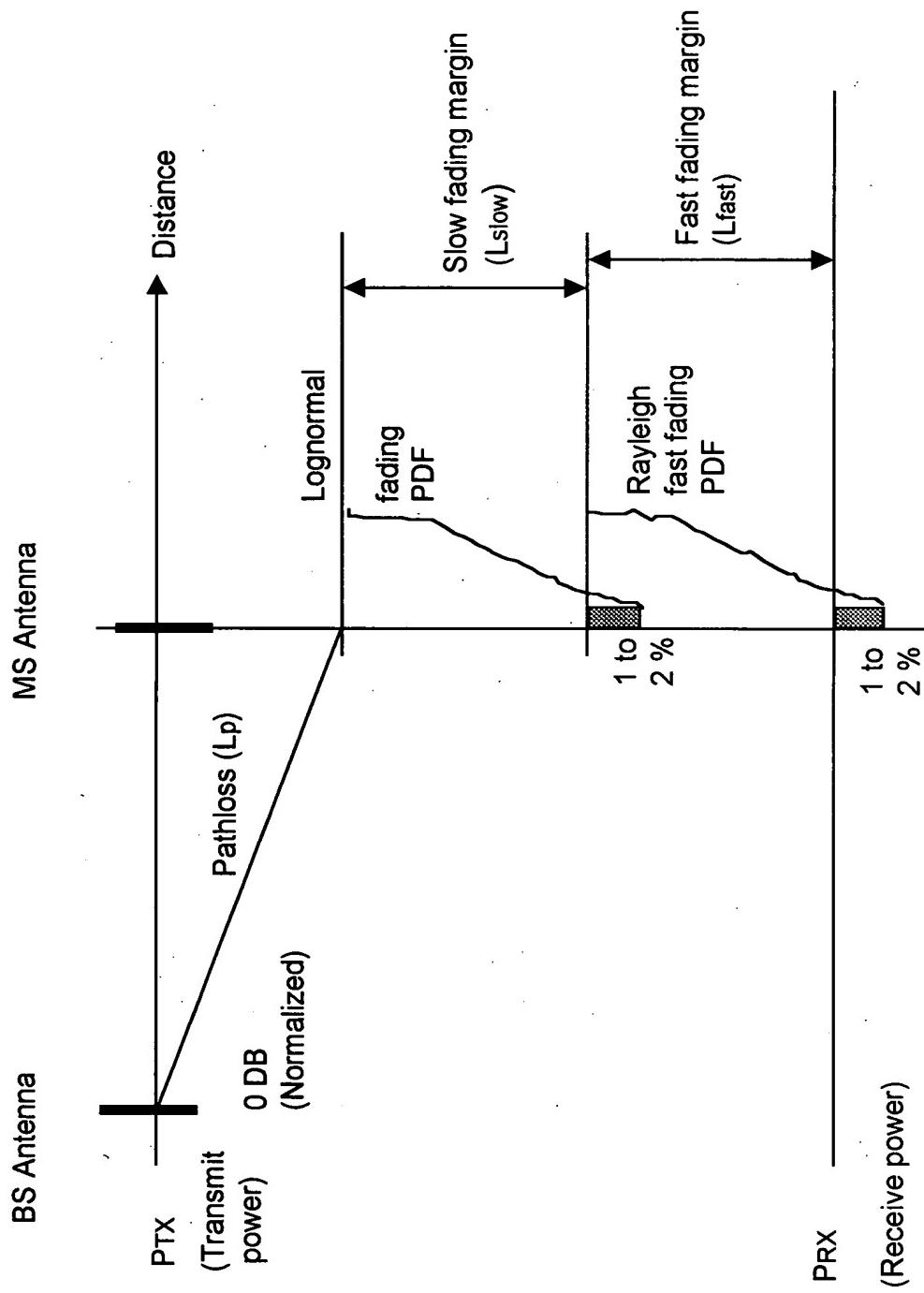


FIG. 3

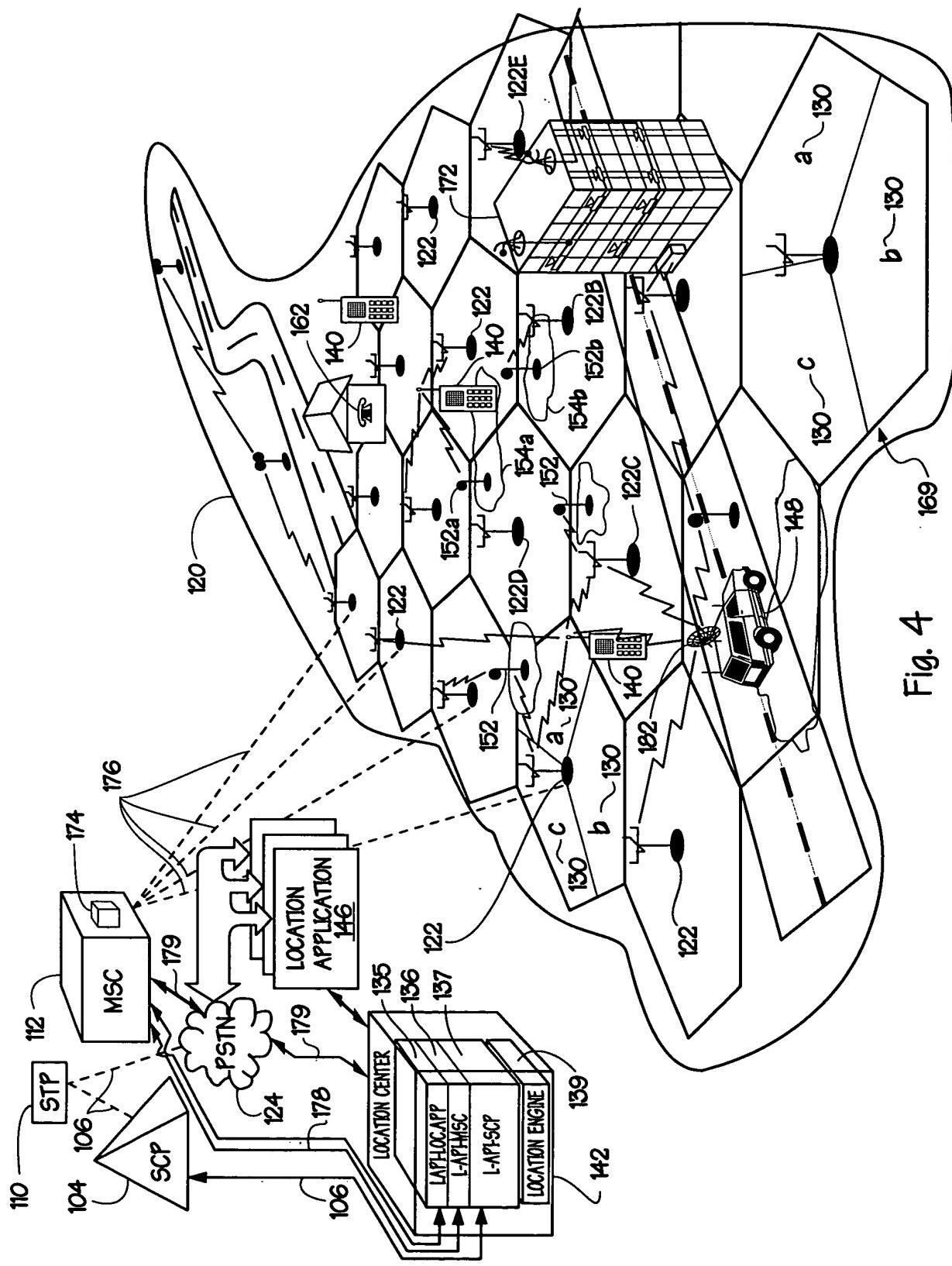
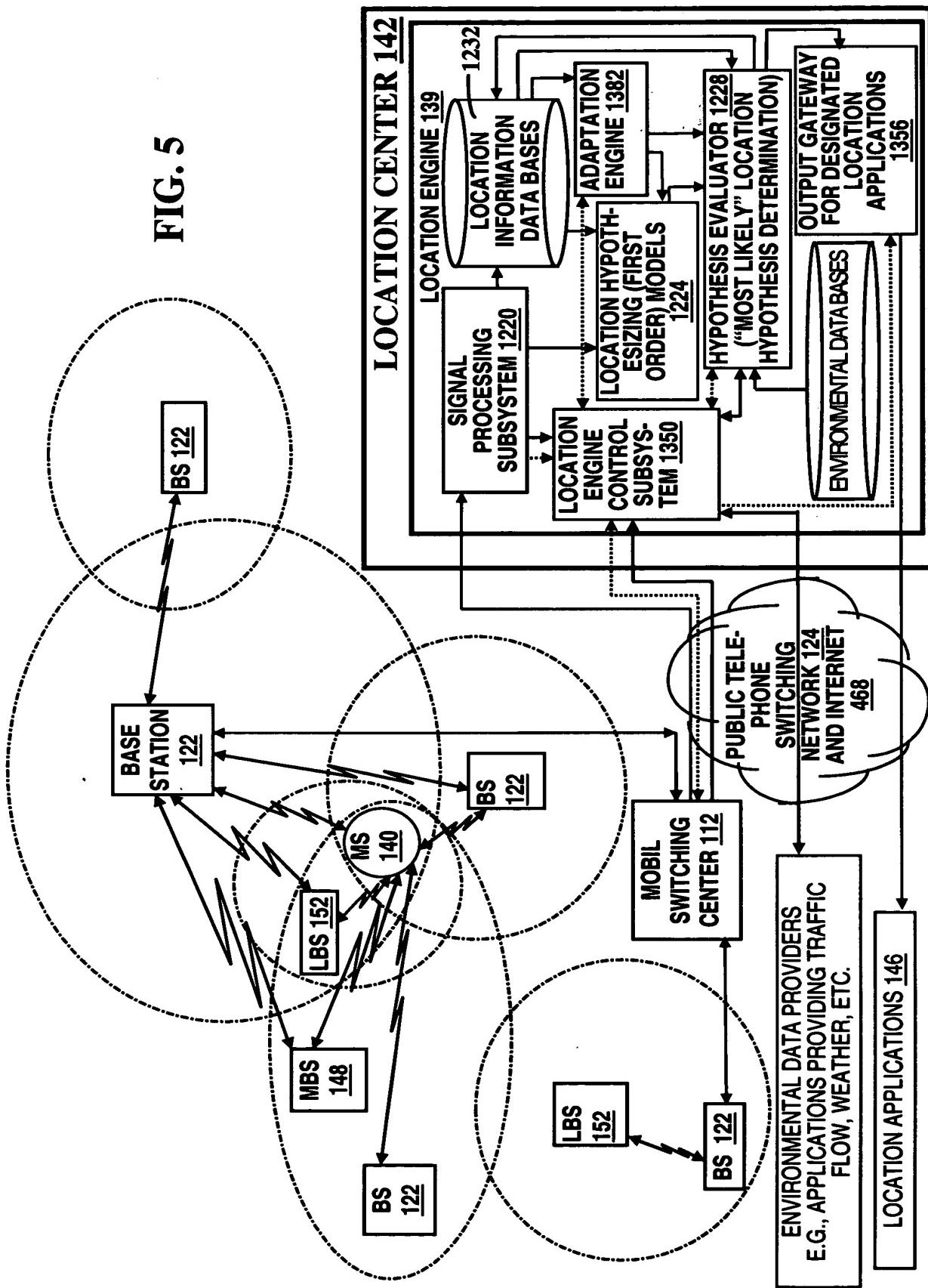


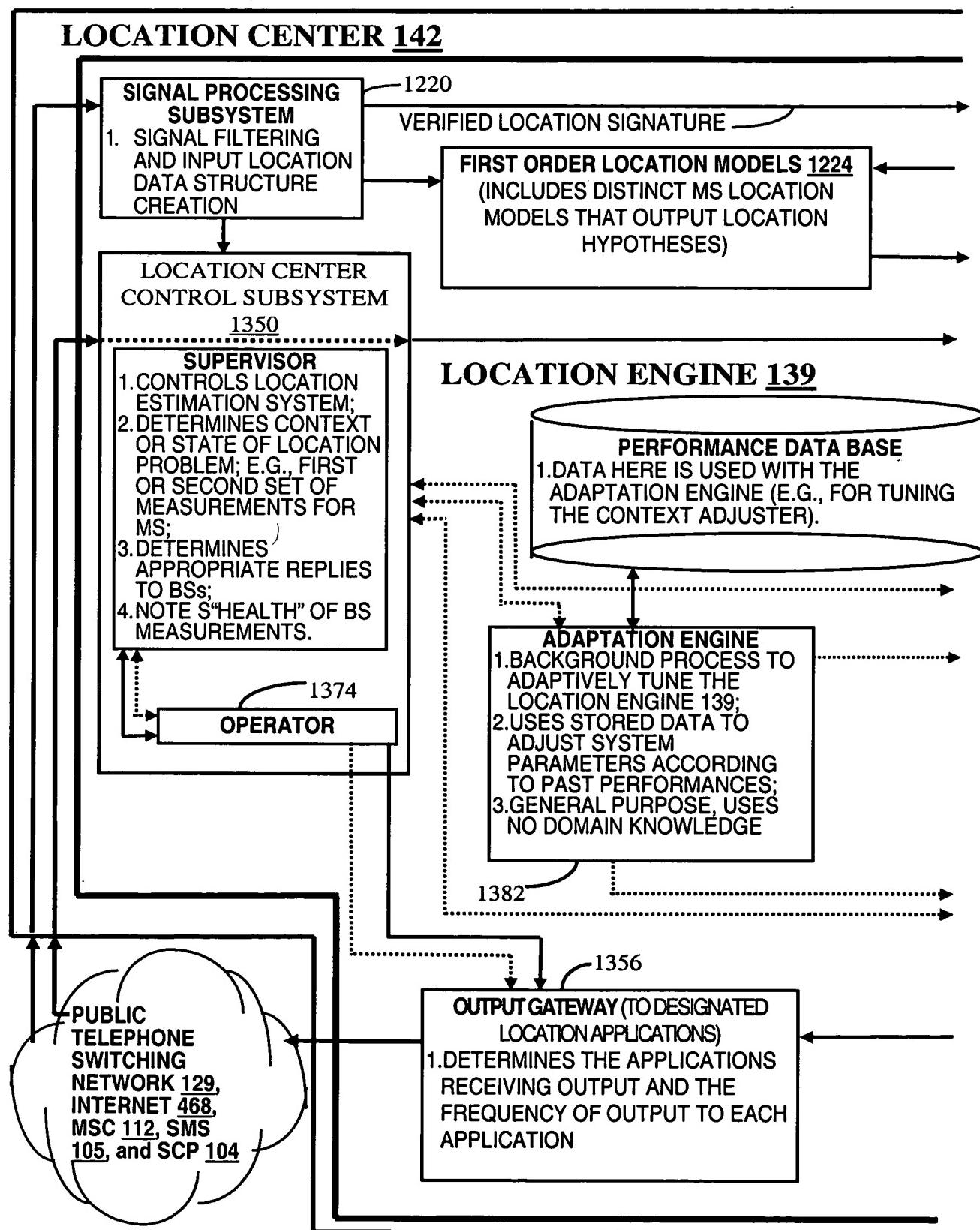
Fig. 4

FIG. 5



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Fig. 6(1)

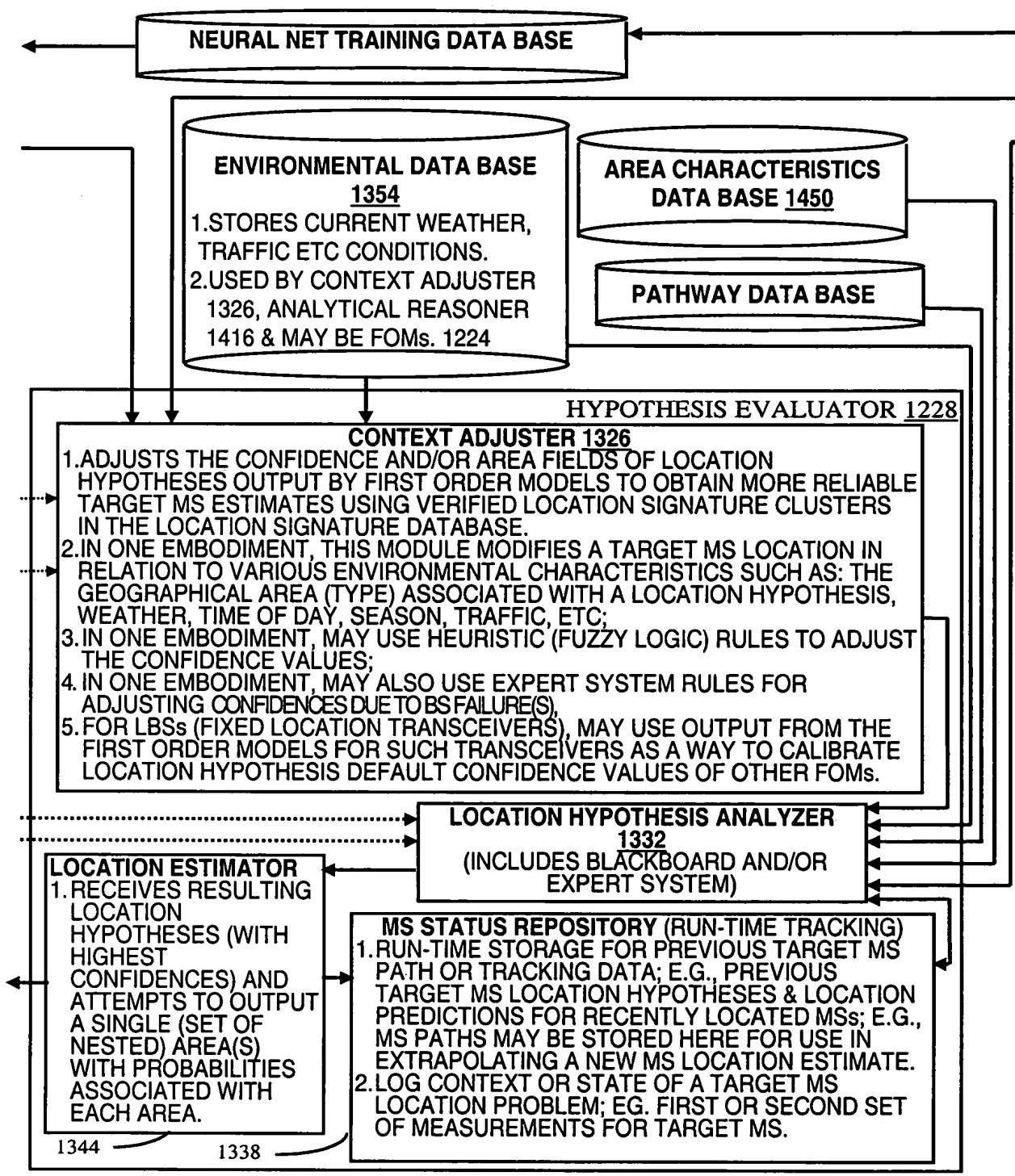


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FIG 6(2)

LOCATION CENTER 142

LOCATION ENGINE 139



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FIG 6(3)

LOCATION CENTER 142

LOCATION ENGINE 139

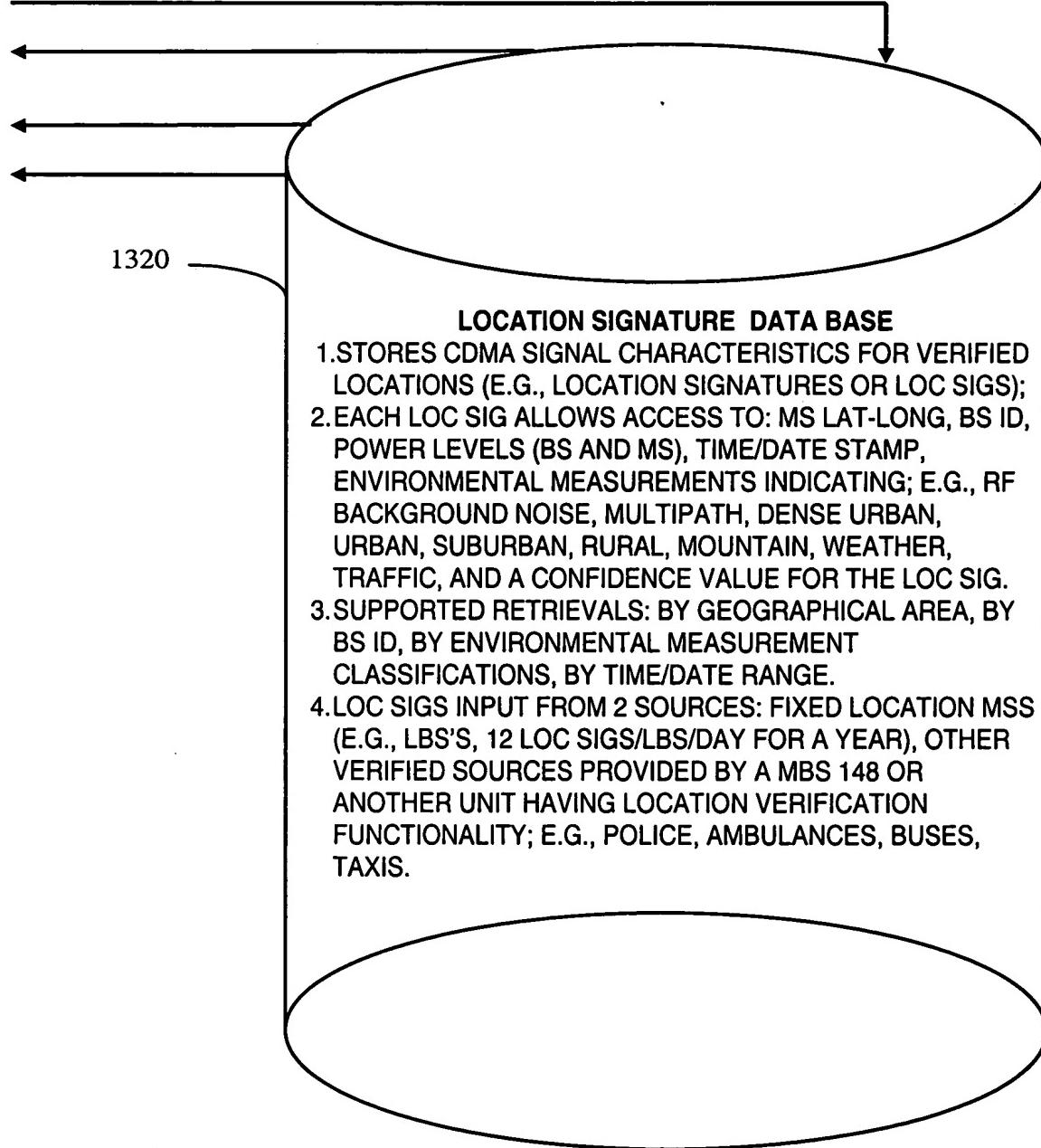
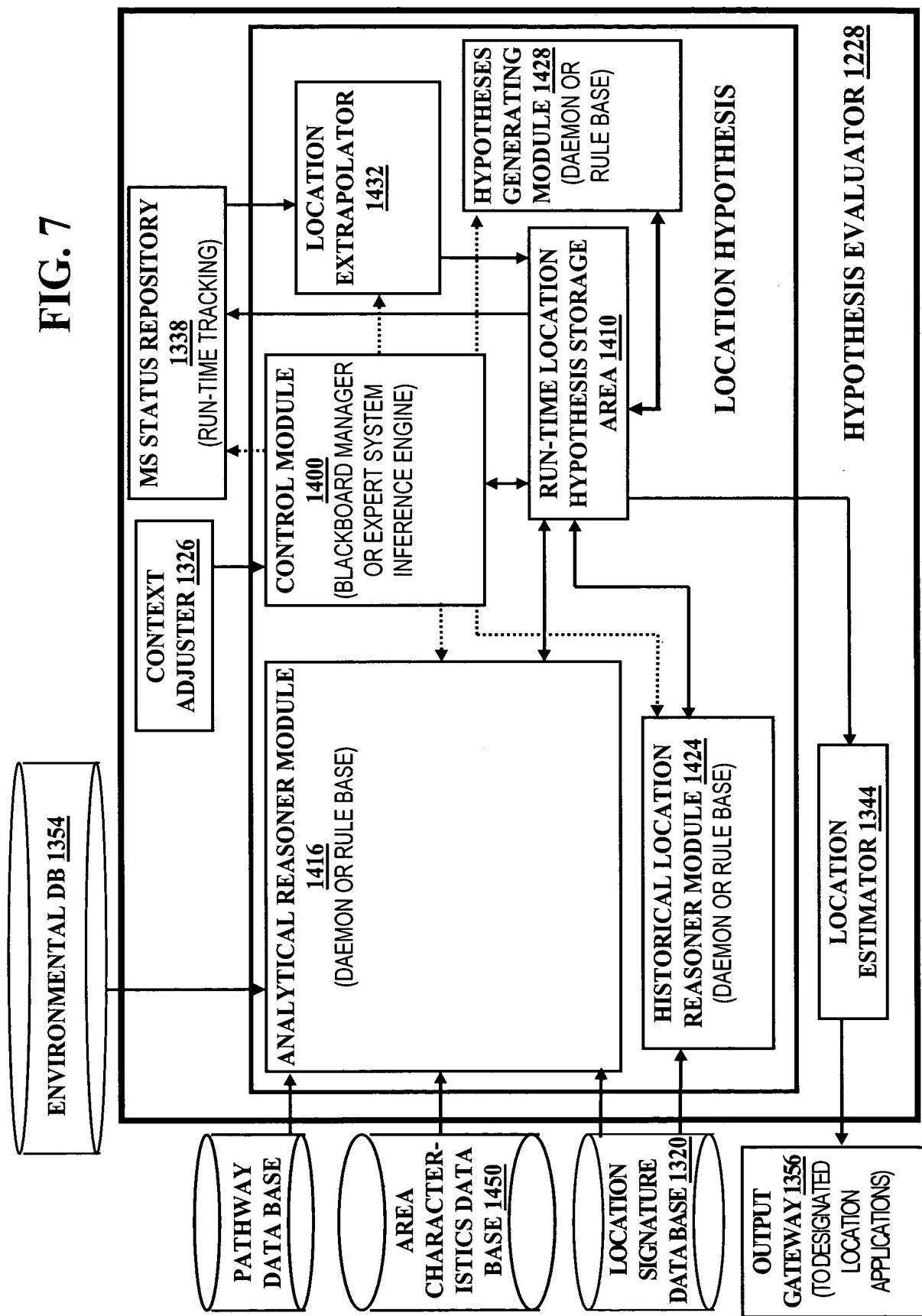
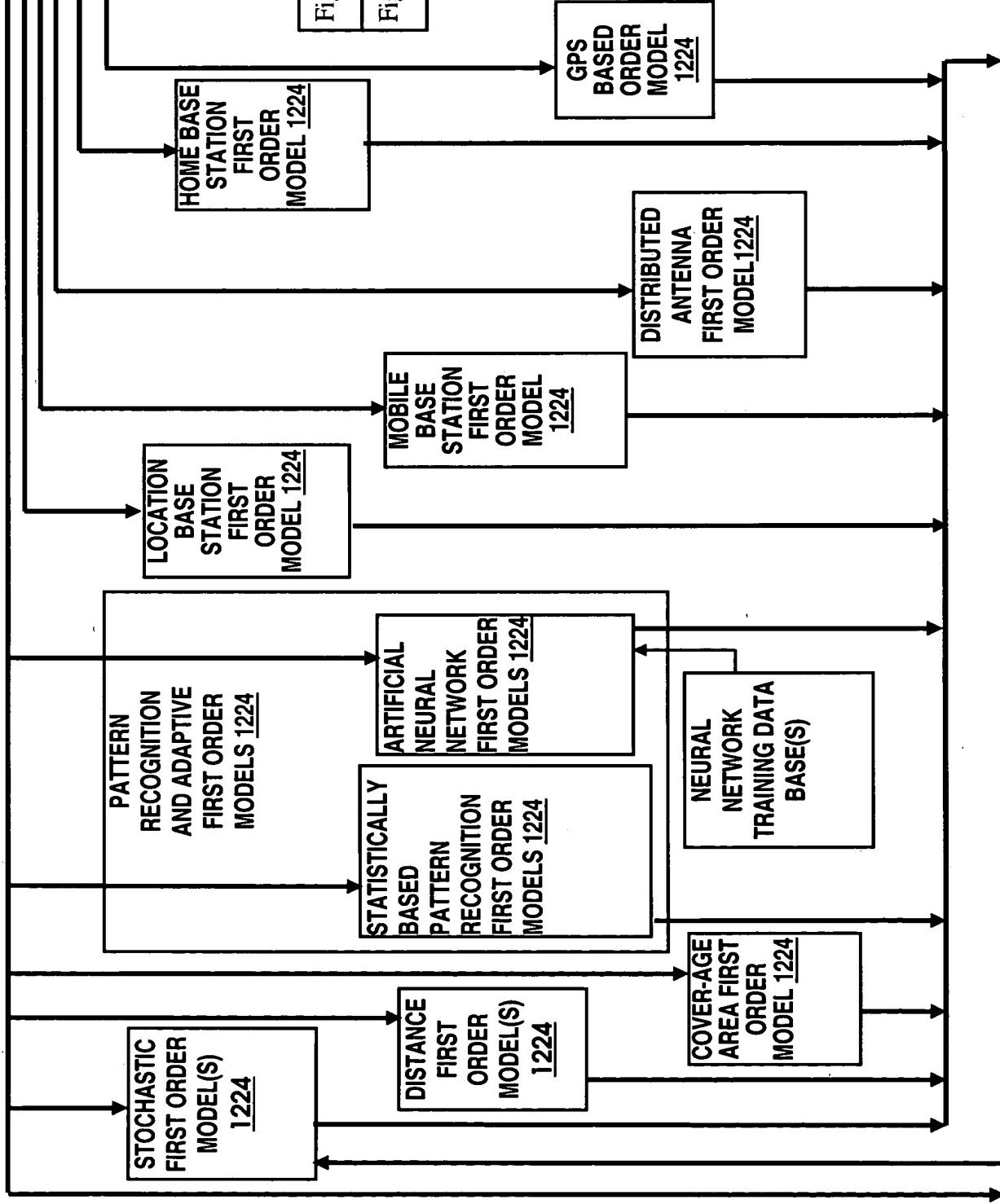
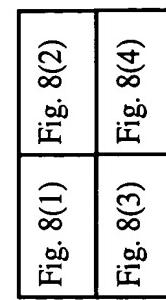


FIG. 7



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Fig. 8(1)



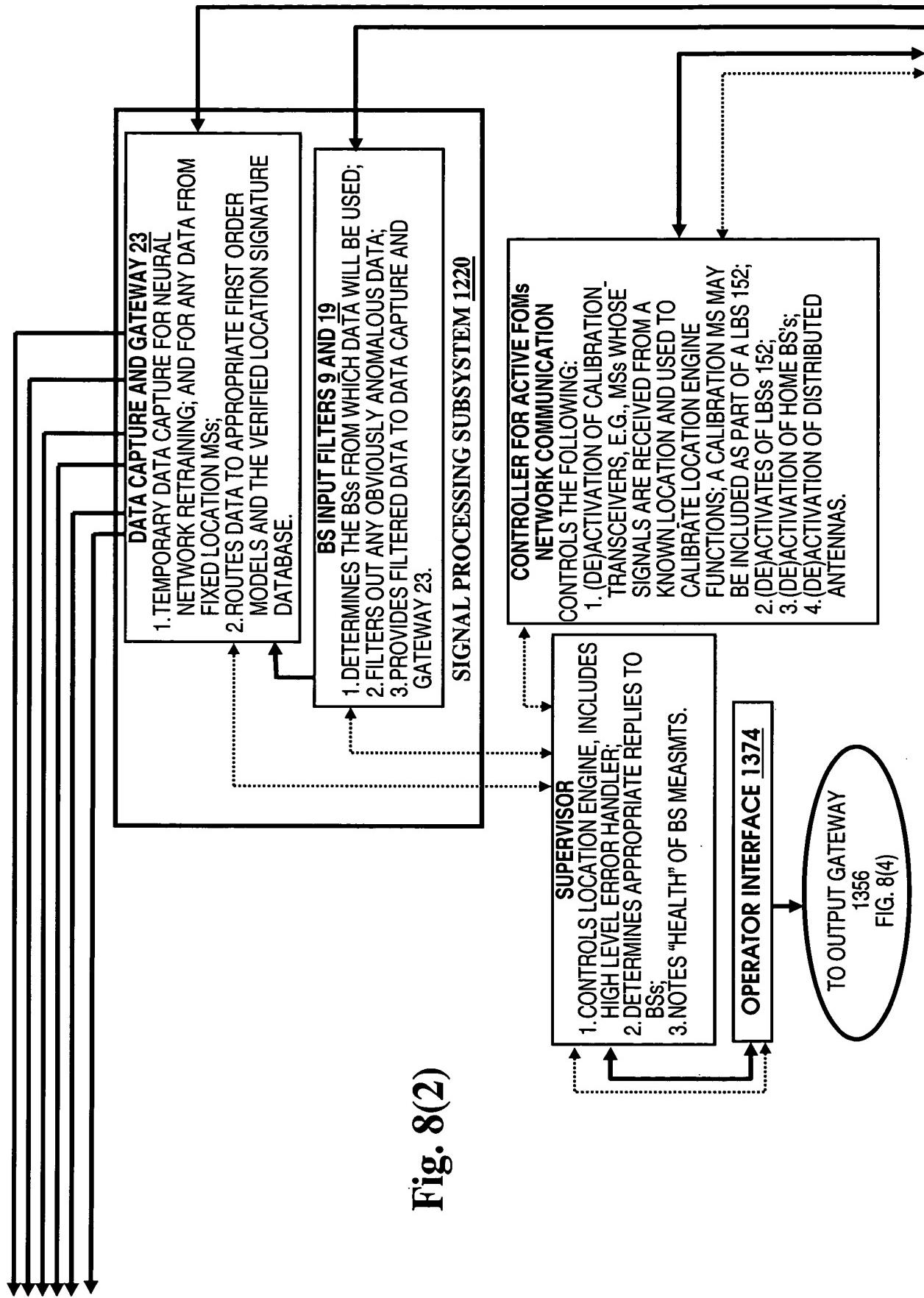


Fig. 8(2)

APPROVED BY	O.G. FIG.
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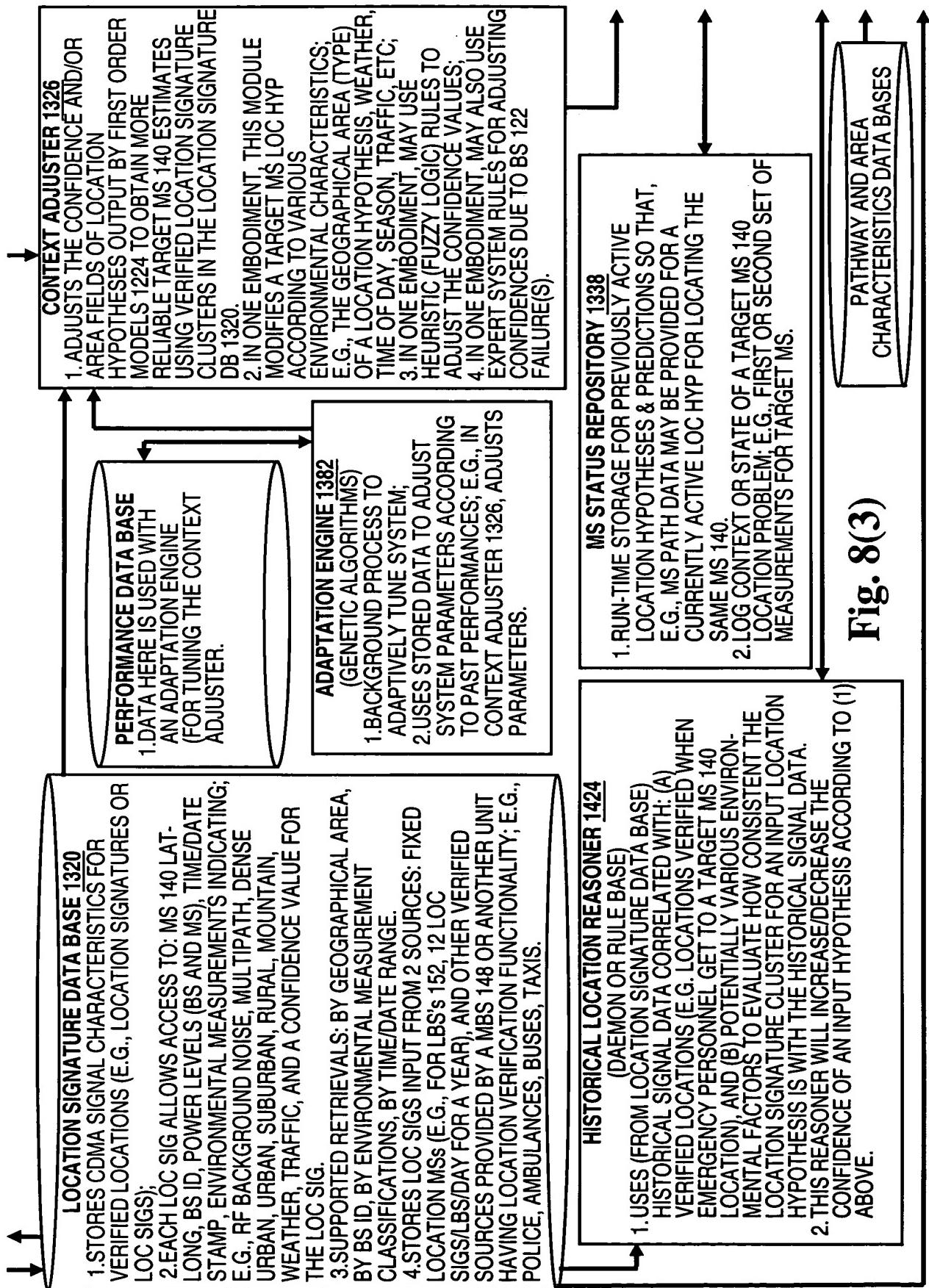


Fig. 8(3)

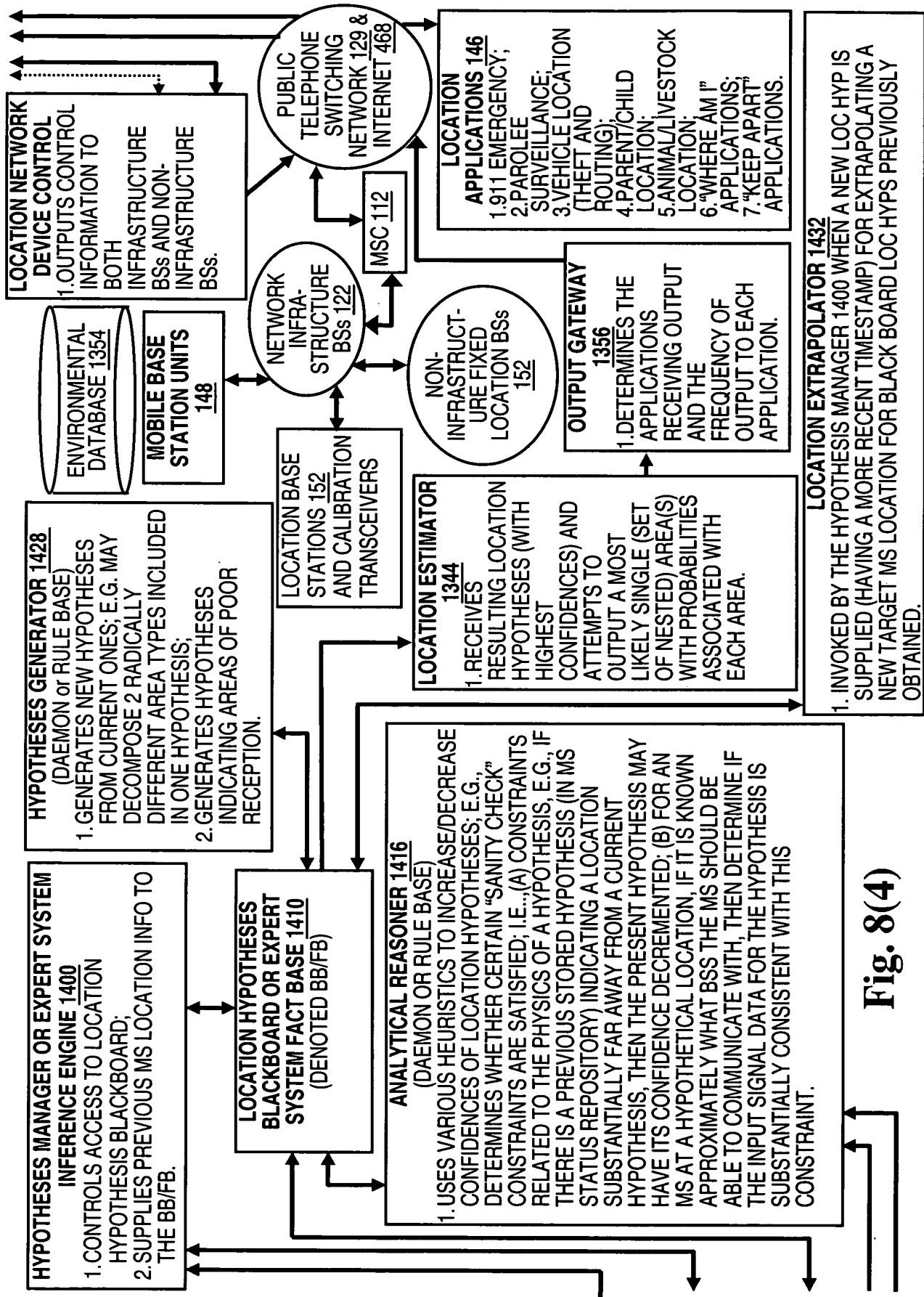


Fig. 8(4)

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FOM_ID: First Order Model ID (providing this Location Hypothesis); note, since it is possible for location hypotheses to be generated by other than the FOM's, in general this field identifies the module that generated this location hypothesis.

MS_ID: The identification of the target MS to which this location hypothesis applies.

pt_est: The most likely location point estimate of the target MS

valid_pt: Boolean indicating the validity of “pt_est”

area_est: Location Area Estimate of the target MS provided by the FOM. This area estimate will be used whenever “image_area” below is NULL.

valid_area: Boolean indicating the validity of “area_est” (one of “pt_est” and “area_est” must be valid).

adjust: Boolean (true iff adjustments to the fields of this location hypothesis are to be performed in the Context Adjuster Module).

pt_covering: reference to a substantially minimal area (e.g., mesh cell) covering of “pt_est”. Note, since this MS may be substantially on a cell boundary, this covering may in some cases include more than one cell.

image_area: reference to an area (e.g., mesh cell) covering of the image cluster set area for “pt_covering” (see detailed description of the function, “confidence_adjust”). Note that if this field is not NULL, then this is the target MS location estimate used by the Location Center instead of “area_est”.

FIG. 9A

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extrapolation_area: reference to (if non-NULL) an extrapolated MS target estimate area provided by the Location Extrapolator submodule of the Hypothesis Analyzer. That is, this field, if non_NULL, is an extrapolation of the “image_area” field if it exists, otherwise this field is an extrapolation of the “area_est” field. Note other extrapolation fields may also be provided depending on the embodiment of the present invention, such as an extrapolation of the “pt_covering”.

confidence: A real value in the range [-1.0, +1.0] indicating a likelihood that the target MS is in (or out) of a particular area. If positive: if “image_area” exists, then this is a measure of the likelihood that the target MS is within the area represented by “image_area,” else if “image_area” has not been computed (e.g., “adjust” is FALSE), then “area_est” must be valid and this is a measure of the likelihood that the target MS is within the area represented by “area_est.” If negative, then “area_est” must be valid and this is a measure of the likelihood that the target MS is NOT in the area represented by “area_est”. If it is zero (near zero), then the likelihood is unknown.

Original_Timestamp: Date and time that the location signature cluster for this location hypothesis was received by the CDMA Filter Subsystem,

Active_Timestamp: Run-time field providing the time to which this location hypothesis has had its MS location estimate(s) extrapolated (in the Location Extrapolator of the Hypothesis Analyzer). Note that this field is initialized with the value from the “Original_Timestamp” field.

Processing_Tags_and_environmental_categorizations: For indicating particular types of environmental classifications not readily determined by the Original_Timestamp field (e.g., weather, traffic), and restrictions on location hypothesis processing.

loc_sig_cluster: Access to location signature signal characteristics provided to the First Order Models by the CDMA Filter Subsystem; i.e., access to the “loc_sigs” (received at “timestamp” regarding the location of the target MS)

descriptor: Optional descriptor (from the First Order Model indicating why/how the Location Area Estimate and Confidence Value were determined).

FIG. 9B

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FIG. 10

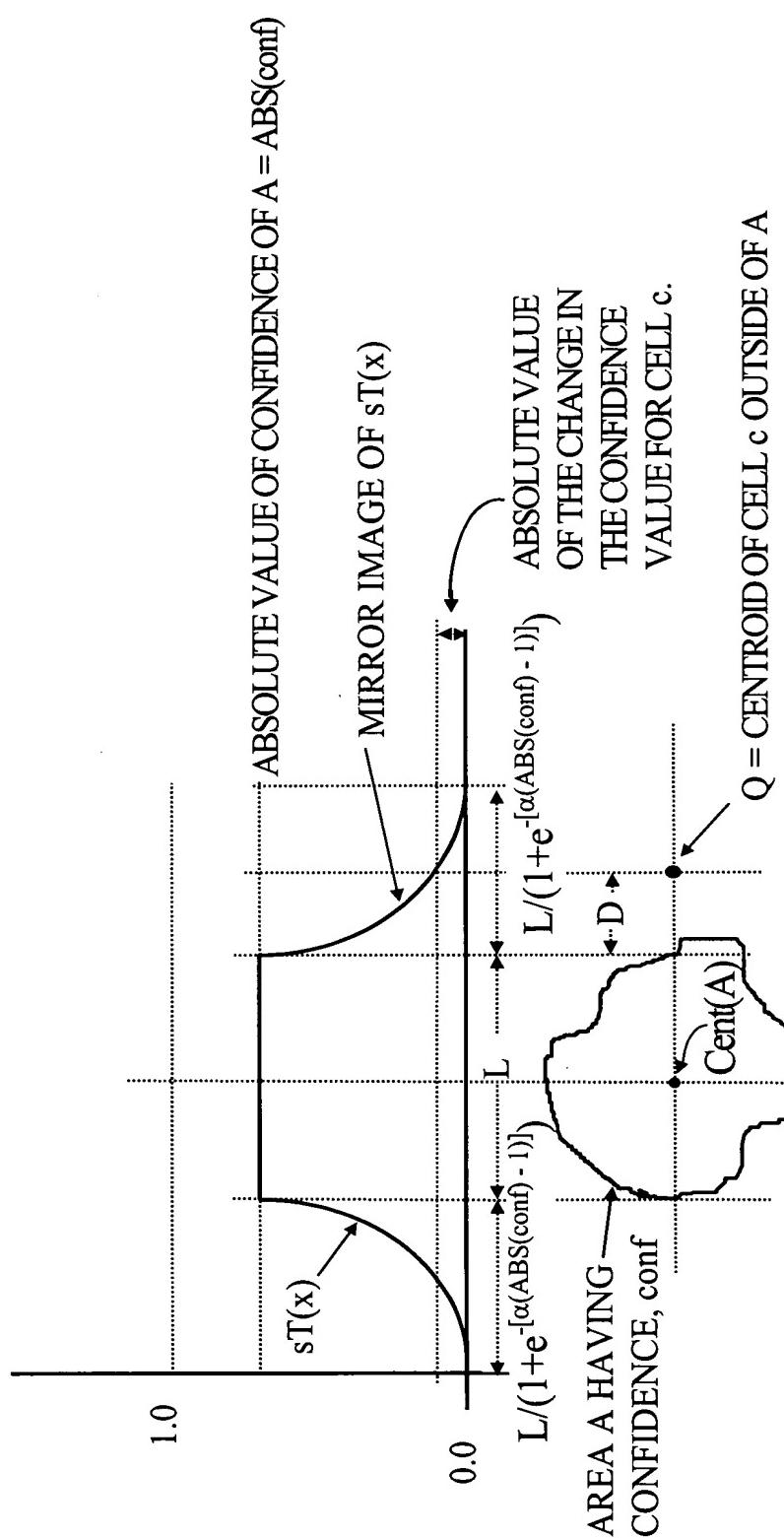
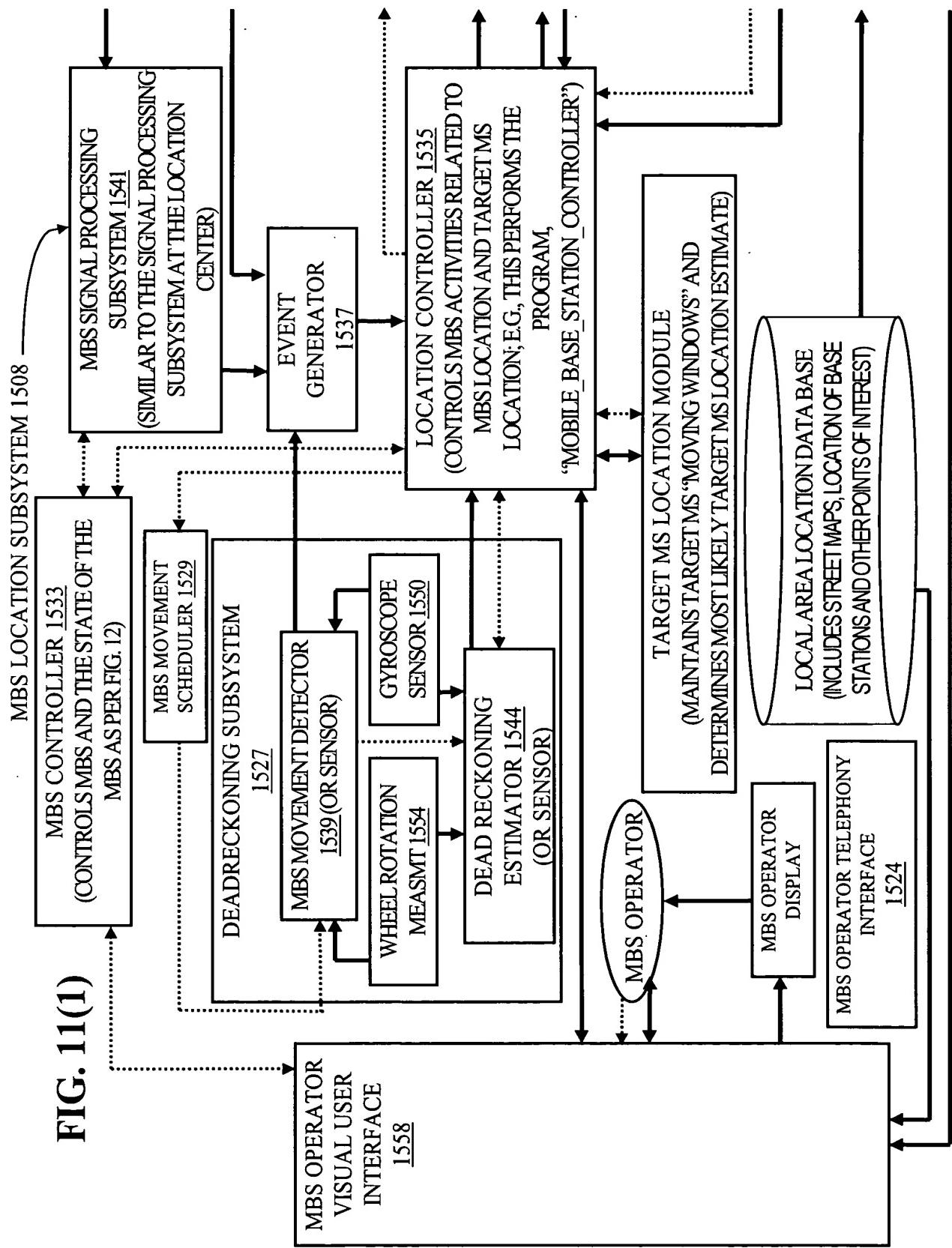


FIG. 11(1)



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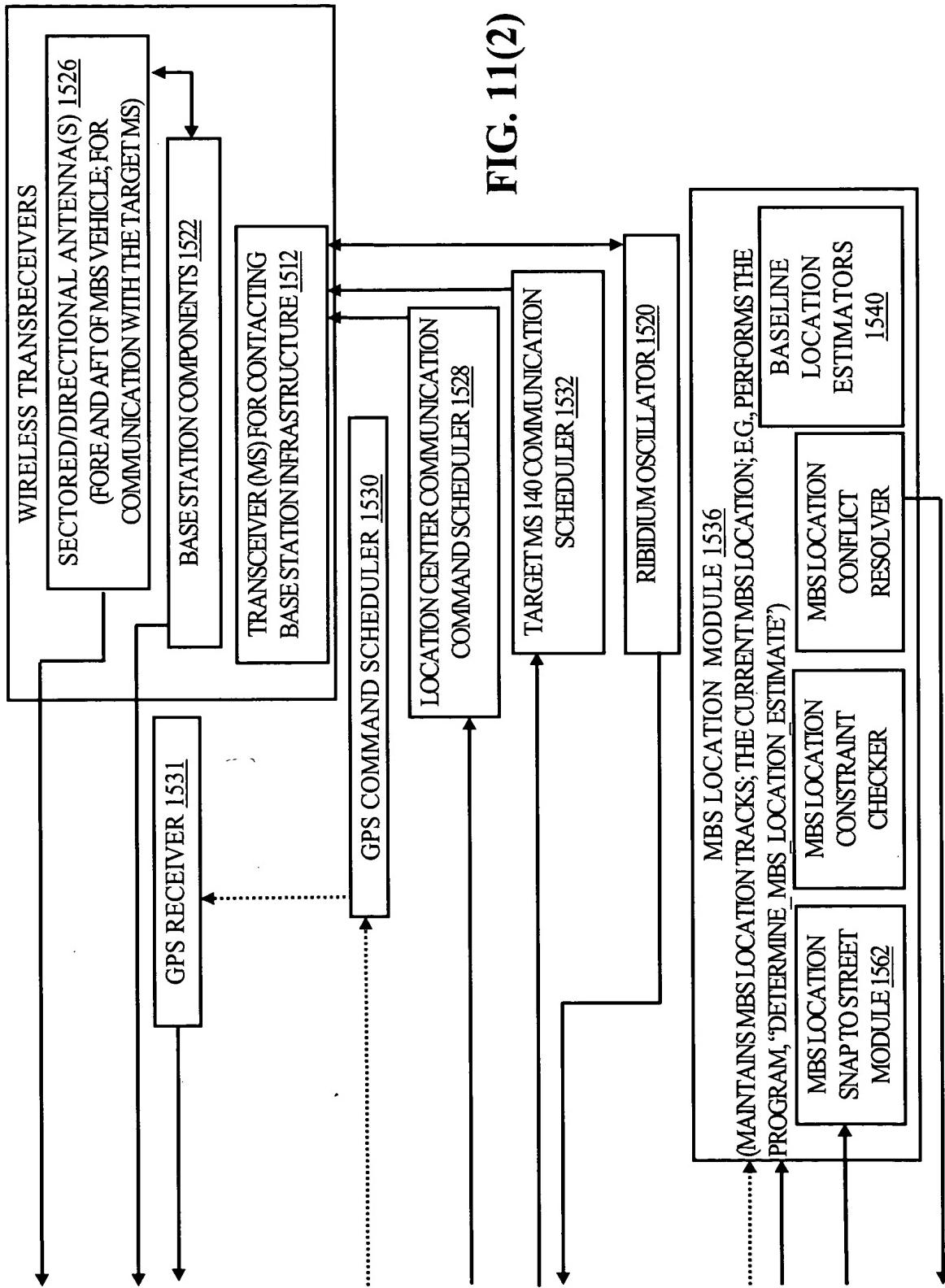
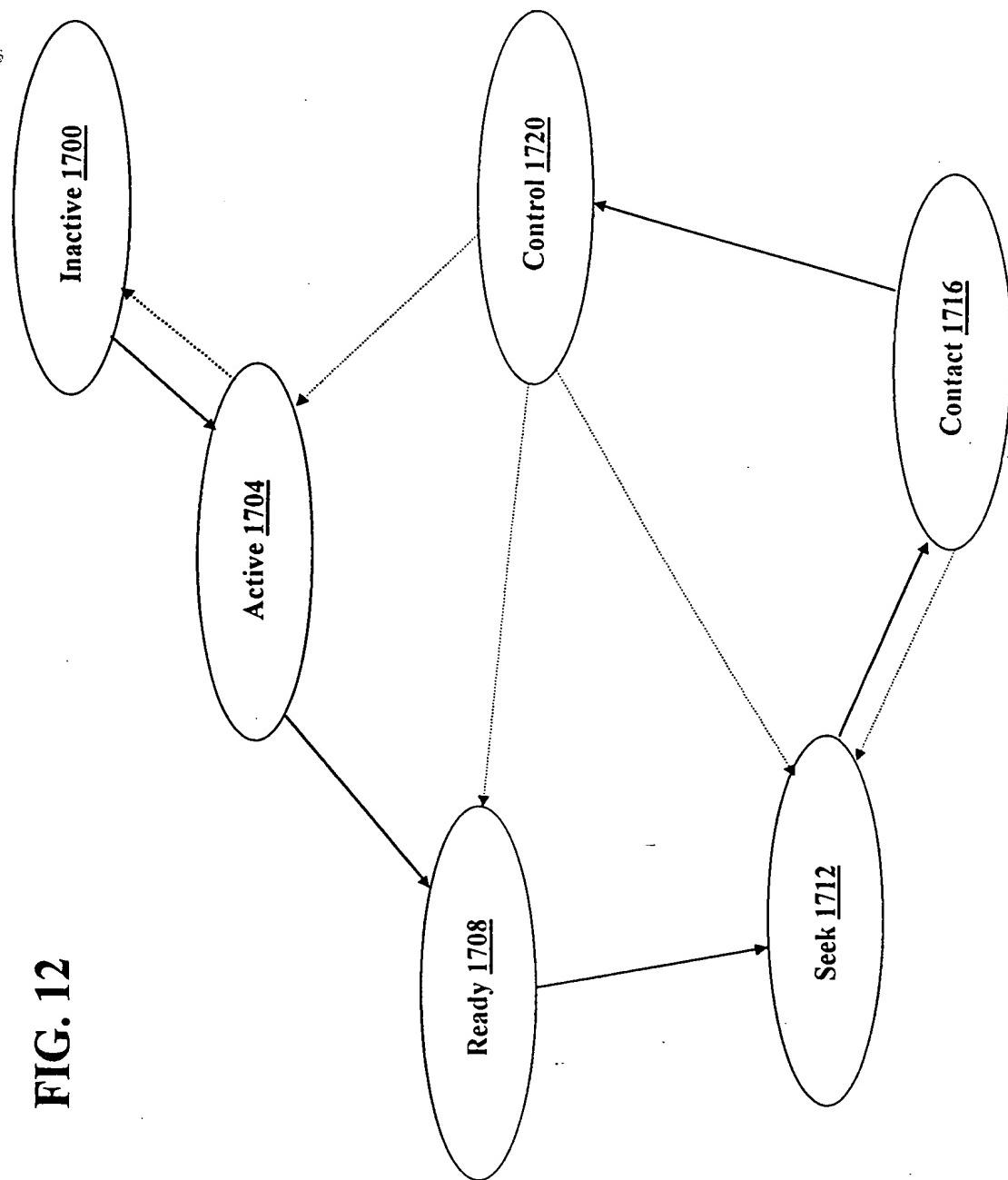


FIG. 11(2)

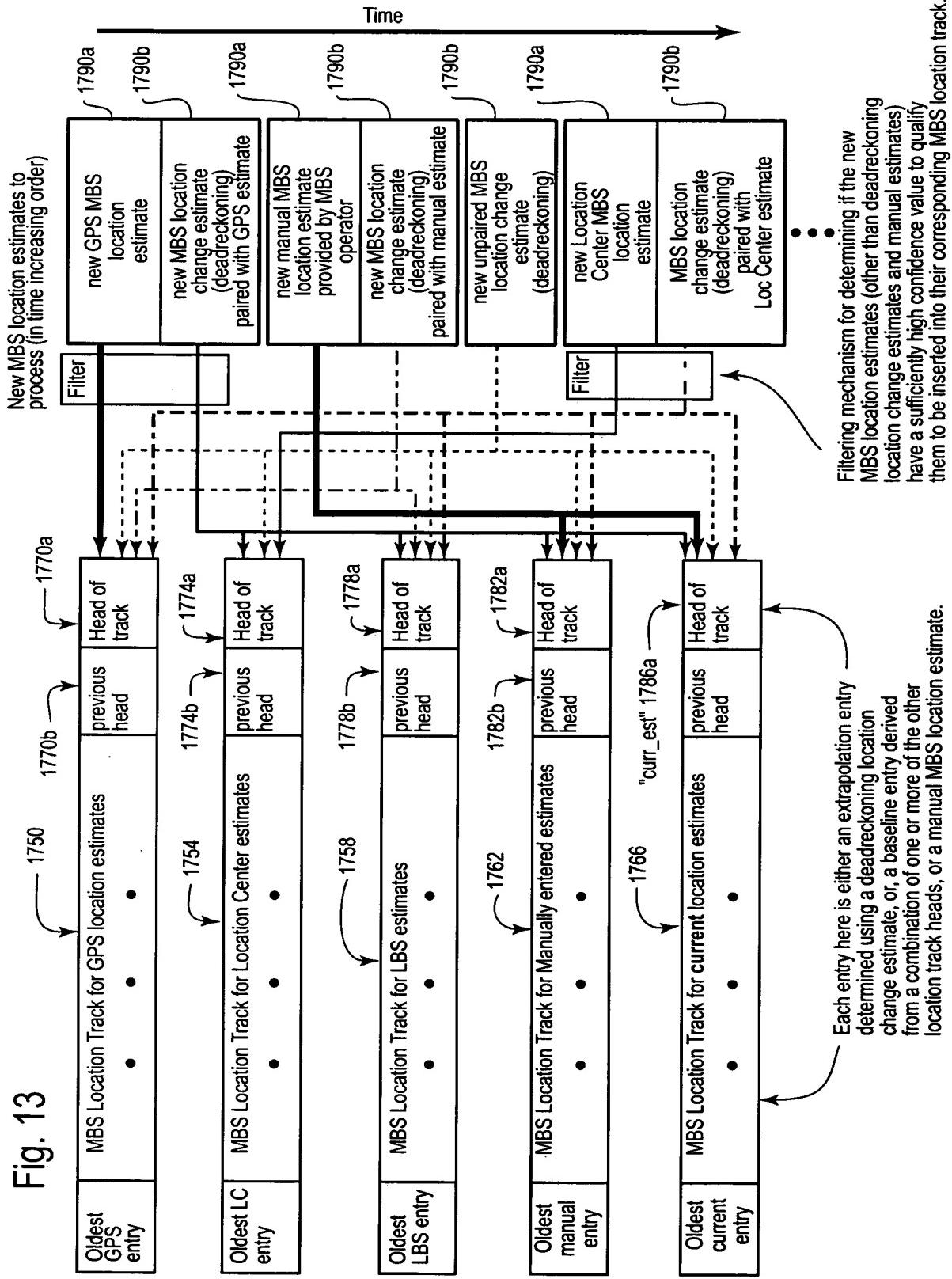
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FIG. 12



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Fig. 13



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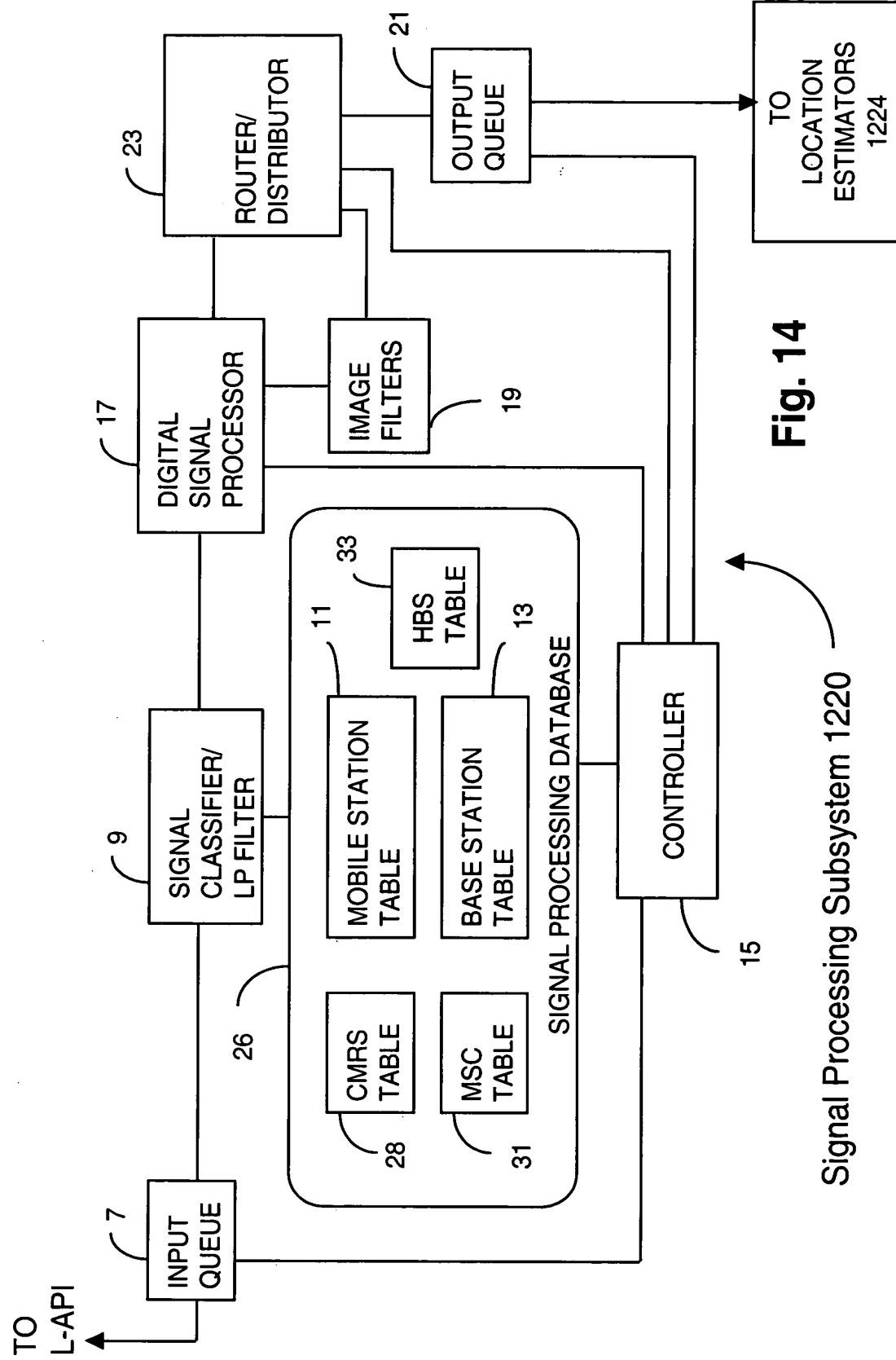


Fig. 14

Signal Processing Subsystem 1220

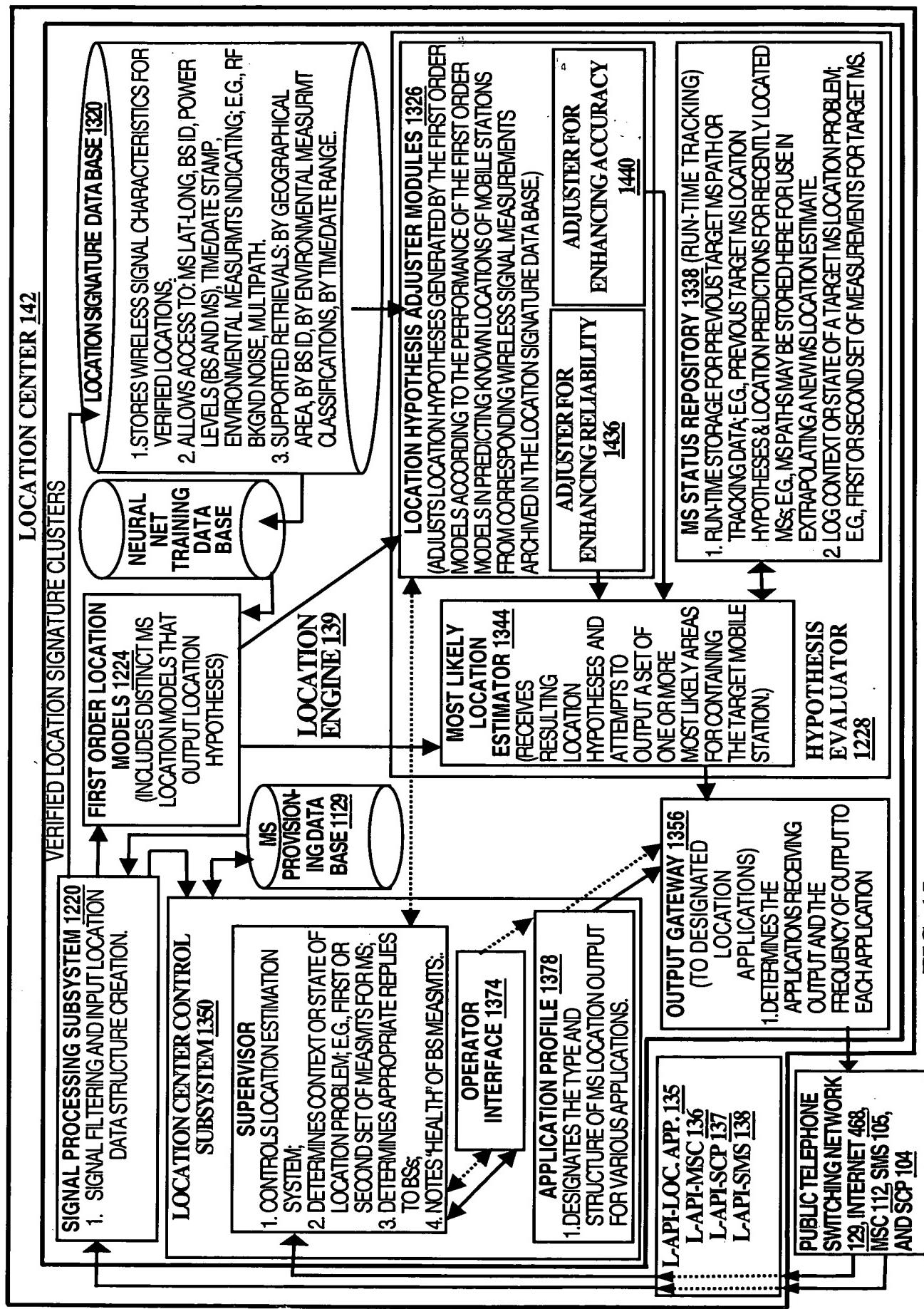


FIG. 15